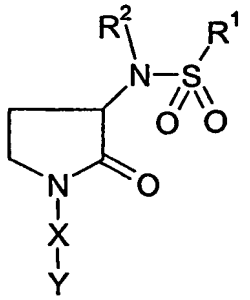
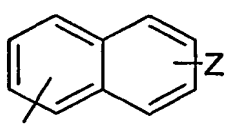
Claims

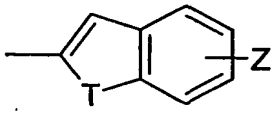
1. A compound of formula (I):

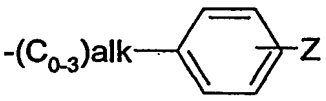


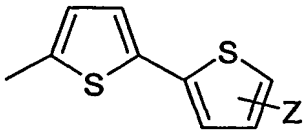
(I)

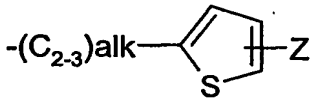
wherein:
R^1 represents a group selected from:











each ring of which optionally contains a further heteroatom N,
Z represents an optional substituent halogen,
alk represents alkylene or alkenylene,
T represents S, O or NH;

R^2 represents $-C_{1-6}$alkyl, $-C_{1-3}$alkylCN, $-C_{0-3}$alkylR^c, $-C_{1-3}$alkylR^f, $-C_{2-3}$alkylNR^aR^b, $-C_{2-3}$alkylOC_{1-6}alkyl, $-C_{2-3}$alkylOC_{1-3}alkyl$CONR^aR^b$, with the proviso that R^2 does not represent C_{2-3}alkylmorpholino;

R^a and R^b independently represent hydrogen, $-C_{1-6}$alkyl, or together with the N atom to which they are bonded form a 5-, 6- or 7- membered non-aromatic heterocyclic ring

optionally containing an additional heteroatom selected from O, N or S, optionally substituted by -C_{1-4}alkyl, and optionally the S heteroatom is substituted by O i.e. represents $S(O)_n$;

R^c represents -C_{3-6}cycloalkyl;

R^f represents phenyl or a 5- or 6- membered aromatic heterocyclic ring, containing at least one heteroatom selected from O, N or S, optionally substituted by 0 to 2 groups selected from -C_{1-4}alkyl or -NH_2, and optionally the S or N heteroatom is substituted by O, i.e. represents $S(O)_n$ or N-oxide;

n represents 0-2;

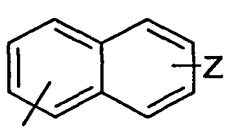
X represents phenyl or a 5- or 6- membered aromatic heterocyclic group containing at least one heteroatom selected from O, N or S, each of which is optionally substituted by 0-2 groups selected from: halogen, -C_{1-4}alkyl, -C_{2-4}alkenyl, -CN, -CF_3, -NR^aR^b, -C_{0-4}alkylOR^e, -$C(O)R^d$ and -$C(O)NR^aR^b$;

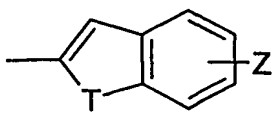
R^e represents hydrogen or -C_{1-6}alkyl;

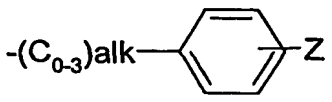
Y represents a substituent selected from hydrogen, halogen, -C_{1-4}alkyl, -C_{2-4}alkenyl, -NR^aR^b, -NO_2, -$C(O)NR^aR^b$, -$N(C_{1-4}$alkyl$)(CHO)$, -$NHCOC_{1-4}$alkyl, -$NHSO_2R^d$, -C_{0-4}alkylOR^e, -$C(O)R^d$, -$S(O)_nR^d$, or -$S(O)_2NR^aR^b$;

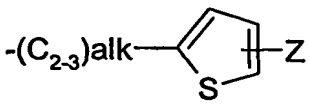
R^d represents -C_{1-6}alkyl;
and/or pharmaceutically acceptable derivative thereof.

2. A compound according to claim 1 wherein R^1 represents a group selected from:









each ring of which optionally contains a further heteroatom N,
Z represents an optional substituent halogen,
alk represents alkylene or alkenylene,
T represents S, O or NH.
and/or pharmaceutically acceptable derivative thereof.

3. A compound according to claim 1 or claim 2 wherein R^2 represents -C_{1-6}alkyl, -C_{0-3}alkylR^c, C_{1-3}alkylR^f, -C_{2-3}alkylNR^aR^b, -C_{2-3}alkylOC_{1-6}alkyl, -C_{2-3}alkylOC_{1-3}alkyl$CONR^aR^b$ and/or pharmaceutically acceptable derivative thereof.

4. A compound according to any one of claims 1-3 wherein X represents phenyl or a 5 or 6 membered aromatic heterocyclic group containing at least one heteroatom selected from O, N or S, each of which is optionally substituted by 0-2 groups selected from: halogen, -C_{1-4}alkyl or -NR^aR^b.

5. A compound according to any one of claims 1-4 wherein Y represents a substituent selected from -$C(O)NR^aR^b$, -$S(O)_nR^d$, -$S(O)_2NR^aR^b$, -$N(C_{1-4}alkyl)(CHO)$ or -$NHSO_2R^d$ and/or pharmaceutically acceptable derivative thereof.

6. A compound according to claim 1 selected from:
4-{(3*S*)-3-[{[(1*E*)-2-(5-Chloro-2-thienyl)-1-propen-1-yl]sulfonyl}(cyclopropylmethyl)amino]-2-oxo-1-pyrrolidinyl}-3-fluoro-*N*,*N*-dimethylbenzamide;
4-((3*S*)-3-{{[(1*E*)-2-(5-Chloro-2-thienyl)-1-propen-1-yl]sulfonyl}[3-(dimethylamino)propyl]amino}-2-oxo-1-pyrrolidinyl)-3-fluoro-*N*,*N*-dimethylbenzamide;
4-((3*S*)-3-{{[(1*E*)-2-(5-Chloro-2-thienyl)-1-propen-1-yl]sulfonyl}[2-(dimethylamino)ethyl]amino}-2-oxo-1-pyrrolidinyl)-3-fluoro-*N*,*N*-dimethylbenzamide;
4-[(3*S*)-3-({2-[(2-Amino-2-oxoethyl)oxy]ethyl}{[(1*E*)-2-(5-chloro-2-thienyl)-1-propen-1-yl]sulfonyl}amino)-2-oxo-1-pyrrolidinyl]-3-fluoro-*N*,*N*-dimethylbenzamide;
4-{(3*S*)-3-[{[(1*E*)-2-(5-Chloro-2-thienyl)-1-propen-1-yl]sulfonyl}(cyclopentyl)amino]-2-oxo-1-pyrrolidinyl}-3-fluoro-*N*,*N*-dimethylbenzamide;
4-((3*S*)-3-{{[(1*E*)-2-(5-Chloro-2-thienyl)-1-propen-1-yl]sulfonyl}[(1-methyl-1H-imidazol-2-yl)methyl]amino}-2-oxo-1-pyrrolidinyl)-3-fluoro-*N*,*N*-dimethylbenzamide;
4-{(3*S*)-3-[{[(1*E*)-2-(5-Chloro-2-thienyl)-1-propen-1-yl]sulfonyl}(1-methylethyl)amino]-2-oxo-1-pyrrolidinyl}-3-fluoro-*N*,*N*-dimethylbenzamide;
4-{(3*S*)-3-[{[(1*E*)-2-(5-Chloro-2-thienyl)-1-propen-1-yl]sulfonyl}(2-pyridinylmethyl)amino]-2-oxo-1-pyrrolidinyl}-3-fluoro-*N*,*N*-dimethylbenzamide;
4-((3*S*)-3-{{[(1*E*)-2-(5-Chloro-2-thienyl)-1-propen-1-yl]sulfonyl}[(3,5-dimethyl-4-isoxazolyl)methyl]amino}-2-oxo-1-pyrrolidinyl)-3-fluoro-*N*,*N*-dimethylbenzamide;

4-((3*S*)-3-{{[(1*E*)-2-(5-Chloro-2-thienyl)-1-propen-1-yl]sulfonyl}[2-(methyloxy)ethyl]amino}-2-oxo-1-pyrrolidinyl)-3-fluoro-*N*,*N*-dimethylbenzamide;
4-[(3*S*)-3-({[(1*E*)-2-(5-Chloro-2-thienyl)-1-propen-1-yl]sulfonyl}{2-[(1,1-dimethylethyl)oxy]ethyl}amino)-2-oxo-1-pyrrolidinyl]-3-fluoro-*N*,*N*-dimethylbenzamide;
4-[(3*S*)-3-([(3-Amino-2-pyrazinyl)methyl]{[(1*E*)-2-(5-chloro-2-thienyl)-1-propen-1-yl]sulfonyl}amino)-2-oxo-1-pyrrolidinyl]-3-fluoro-*N*,*N*-dimethylbenzamide;
4-{(3*S*)-3-[{[(1*E*)-2-(5-Chloro-2-thienyl)-1-propen-1-yl]sulfonyl}(methyl)amino]-2-oxo-1-pyrrolidinyl}-3-fluoro-*N*,*N*-dimethylbenzamide;
4-{(3*S*)-3-[{[(*E*)-2-(5-chloro-2-thienyl)ethenyl]sulfonyl}(methyl)amino]-2-oxo-1-pyrrolidinyl}-3-fluoro-*N*,*N*-dimethylbenzamide;
and/or pharmaceutically acceptable derivative thereof.

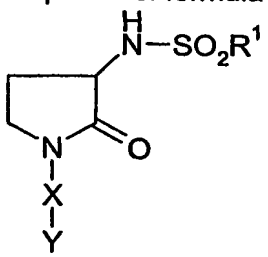
7. A compound according to any one of claims 1-6 and/or pharmaceutically acceptable derivative thereof for use in therapy.

8. A pharmaceutical composition comprising a compound according to any one of claims 1-6 and/or pharmaceutically acceptable derivative thereof together with at least one pharmaceutical carrier and/or excipient.

9. Use of a compound according to any one of claims 1-6 and/or pharmaceutically acceptable derivative thereof for the manufacture of a medicament for the treatment of a patient suffering from a condition susceptible to amelioration by a Factor Xa inhibitor.

10. A method of treating a patient suffering from a condition susceptible to amelioration by a Factor Xa inhibitor comprising administering a therapeutically effective amount of a compound according to any one of claims 1-6 and/or pharmaceutically acceptable derivative thereof.

11. A process for preparing a compound of formula (I) which comprises reacting a compound of formula (II) with a compound of formula (III):



(II)

R^2—T (III)

where R^2 is $-C_{1-6}$alkyl, $-C_{1-3}$alkylCN, $-C_{0-3}$alkylR^c, $-C_{1-3}$alkylR^f, $-C_{2-3}$alkylNR^aR^b, $-C_{2-3}$alkylOC_{1-6}alkyl, $-C_{2-3}$alkylOC_{1-3}alkyl$CONR^aR^b$, with the proviso that R^2 does not represent C_{2-3}alkylmorpholino, and T is a suitable leaving group.